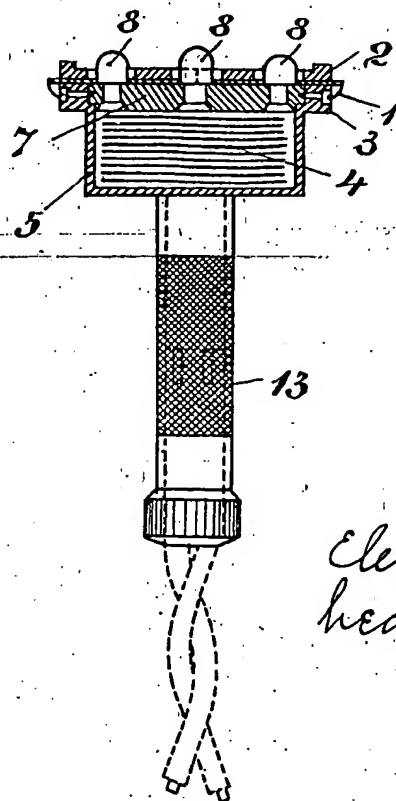


T-30/3:

Fig. 1.



Electrically heated.

Fig. 2.

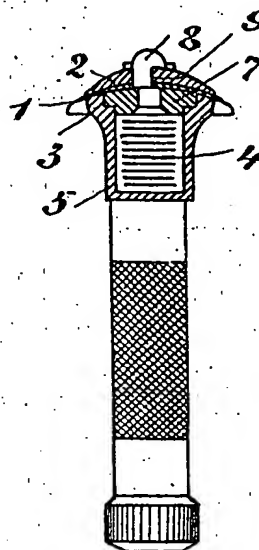


Fig. 3.

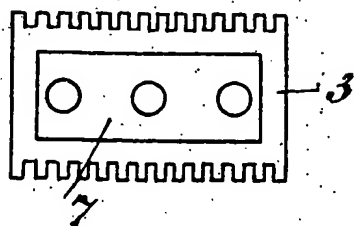
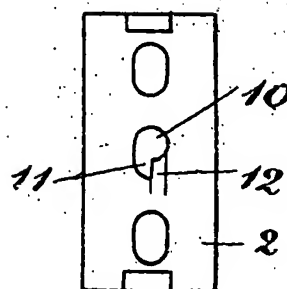


Fig. 4.



30-12  
12

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## PATENT SPECIFICATION



Convention Date (Sweden): July 19, 1919.

149,265

Application Date (in United Kingdom): July 13, 1920. No. 21,171/20.

Complete Accepted: Oct. 13, 1921.

### COMPLETE SPECIFICATION.

#### Improvements in or relating to Shaving Apparatus, Razors and the like.

I, AXEL EDVARD ASTRAND, of Sibyllegatan 9, Stockholm, Sweden, a subject of the King of Sweden, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to shaving apparatus, razors and the like.

It is well known that shaving is facilitated by previously dipping the razor or shaving apparatus into hot water. In this manner, the benefit is of short duration and moreover the water, in order to sufficiently heat the razor must be so hot, that drops, adhering to the razor, might scald the skin.

For the removal of these disadvantages, the razor or the shaving device is provided, according to this invention, with a blade which is continuously heated. The effect of directly and continuously heating the razor or the like has proved surprisingly favourable, presumably due to the fact that a dry razor or blade may be heated to a high temperature without burning through the lather during the shaving operation. The invention is not limited to a special form of the heating device but comprises any such heating means combined in the manner just stated, with shaving apparatus of any construction such as razors, safety razors and the like.

In shaving apparatus of a type commonly used at present and generally called "safety razors" a thin blade is held between two plates, one of which, the lower, is generally connected with a handle. The top plate may now be provided with an electric heating device, which is connected with a circuit for

instance by the guide-pins of the said plate, which in the ordinary manner are passed through corresponding holes provided in the blade and the inner plate. It may, however, be more suitable to provide the heating source below the inner plate, generally connected with the handle, owing to the fact that the available space is greater.

In the accompanying drawings such an application of the invention is illustrated in Figures 1 and 2 in one form of construction viewed in sections perpendicular to one another.

Figures 3 and 4 show details.

In the drawing 1 designates the blade, 2 the top cover plate and 3 the lower plate, connected with the handle 13. On the top side of the inner plate 3 three guide-pins 8 are provided. As the parts of the apparatus are put together, the two lateral pins are slid through the ordinary holes provided in the blade and oblong holes provided in the top-plate 2. In one side of the centre pin a notch 9, oblique if necessary, is provided. In the plate 2 a key-hole-like opening 10, 11 for the centre pin is provided. As the parts are put together the blade is placed on the plate 3 with the pins 8 slid through the holes of the blade. The plate 2 is then superposed in such manner, that the centre pin passes through the wider part 10 of the centre hole. The plates 2 and 3 are then forced toward one another and the plate 2 is simultaneously moved longitudinally, so that the top edge of the notch 9 engages the plate 2, which at this part 12 preferably is bevelled, so that the plate 2 is pressed toward the lower plate 3. By removing the plate 2 in one or the other direction the binding

action of the same may be modified and thus the edges of the blade adjusted with relation to the teeth of the plate 3.

5 The plate 3 is formed as a casing 5 for an electric heating means 4, which by means of split pins provided in the handle 13, as indicated in Figure 1, may be connected with an electric circuit.

10 For facilitating the changing of the heating means the plate 3 is provided with a centre piece 7 loosely fitted in the plate 3, which centre piece forms the cover of the casing 5 and is fixed in any suitable manner, for instance by means of screws, as shown in Figure 1.

15 Parts of the shaving apparatus such as the cover 7 and the frame shaped part of the plate 3 or the casing 5 may be made from materials having different heat conducting capacity. Interposed insulating layers may also be used. An

adjustable resistance may, if necessary, be provided in the circuit.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

1. An improved razor or shaving device in which the blade is continuously heated.

2. A form of the shaving apparatus, razor or the like as claimed in Claim 1, characterised by the heating means being electrical.

3. Shaving apparatus, razors or the like substantially as described and as illustrated in and by the accompanying drawings.

Dated this 13th day of July, 1920.

MARKS & CLERK.